

Work Order ID 56982

March 16, 2010 10:26:09 AM



Page 1

Item ID:	D4085-1	Accept		Setup	Start	
Revision ID:					Stop	
Item Name:	Placard, Instructions					
Start Date:	3/16/10	Start Qty:	15.00		Cust Item ID:	
Required Date:	3/23/10	Req'd Qty:	15.00		Customer:	
Reference:						

Approvals:	Process Plan:	<u>C2</u>	Date:	<u>10/3/16</u>	Tooling:	Date:		Run	Start	
	QC:		Date:		SPC (Y/N):	Date:			Stop	

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Draw Number	Draw Rev.	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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Draw Nbr	Revision Nbr
D4085	A

100		0.00
	PURCHASING	
Purchasing	Memo	0.00
Purchasing	Issue P/O: <u>11514</u>	
	Fabricate as per Dwg D4085	
	Possible Supplier: Studio Lettrage	
	Material release note is required	

C2 10/3/16 (15)

110		0.00
	Receive & Inspect for Damage & Mat'l Certs	
Packaging	Memo	0.00
Packaging	Ensure Material Release Note is attached	

P 10/2/23 (15)

120		0.00
	QC6- Inspect dimensions to drawing	
QC	Memo	0.00
Quality Control		

8 10/3/24

(45)

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Work Order ID 56982

March 16, 2010 10:26:09 AM



Page 2

Item ID: D4085-1

Accept



Setup Start



Revision ID:

Item Name: Placard, Instructions

Stop



Start Date: 3/16/10 Start Qty: 15.00



Cust Item ID:

Required Date: 3/23/10 Req'd Qty: 15.00



Customer:

Reference:

Run Start



Approvals: Process Plan: Date: Tooling: Date:

Stop



QC: Date: SPC (Y/N): Date:

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Draw
Number

Draw
Rev.

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

130

Identify as per dwg & Stock Location: 112

0.00



Packaging

Memo

0.00

Packaging

10/3/24 (15)

140

QC21- Final Inspection - Work Order Release

0.00



QC

Memo

0.00

Quality Control

10/03/24 15

10-3-24 (15)

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

March 16, 2010 10:26:08 AM

Page 1

Work Order ID: 56982



Parent Item: D4085-1

Parent Item Name: Placard, Instructions

Start Date: 3/16/10

Required Date: 3/23/10

Comments: IPP Rev:A new issue DD 10.03.16 verified by:EC

Start Qty: 15.00

Required Qty: 15.00

Component Item-ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	--------------------------	---------------	----------------	--------

D4085-1P		Purchased	No			110	Each	0.0000	15.0000			
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Placard, Instructions



P 14/3/23 *15*

Dart Aerospace Ltd

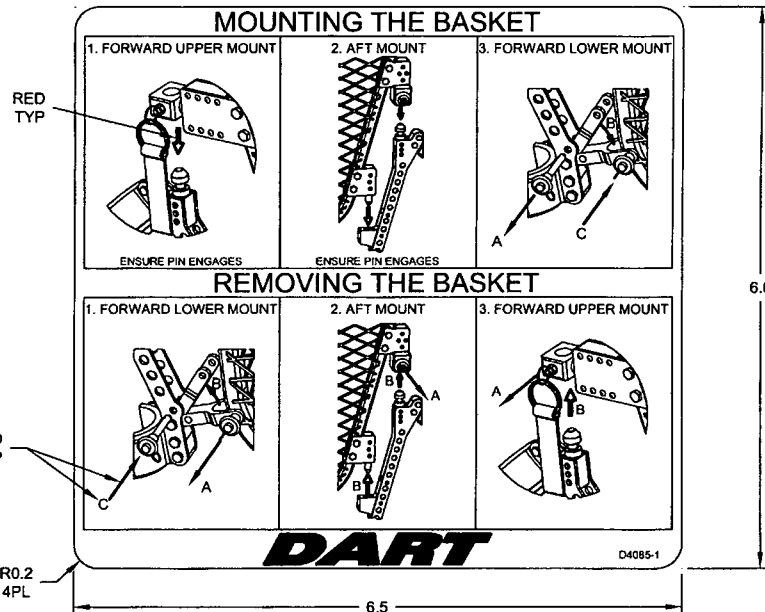
W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries



D4085-1 PLACARD, INSTRUCTIONS

NOTES:

- 1) MATERIAL: BLACK LETTERS AND GRAPHICS WITH RED ARROWS AND LOGO ON WHITE BACKGROUND AND ADHESIVE BACK.
MANUFACTURED FROM 3M, 7 MIL MASKING FILM #8522CP OR AVERY IPM #2031
- 2) FINISH: N/A
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: N/A
- 6) IDENTIFICATION: N/A
- 7) WEIGHT: N/A
- 8) USE FILE D4085-A.eps FOR GRAPHICS

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 56982
C210/3114

RELEASED
R 2010-03-12
JPH

A NEW ISSUE		JPH 10.03.08	
REV.	DESCRIPTION	BY	DATE
DESIGN	JPH	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	JPH		
CHECKED	JPH	DRAWING NO.	REV. A
MFG. APPR.		D4085	SHEET 1 OF 1
APPROVED	JPH	TITLE	SCALE
DE APPR.		PLACARD, INSTRUCTIONS	NTS
DATE	10.03.08	COPYRIGHT © 2010 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	



Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Tel: 613 632 9577
Fax: 613 632 1053

PO REPRINT

Purchase Order ID PO11514

Purchase Order Date 3/16/10

PO Print Date 3/23/10

Page Number 2 of 2

om :

VC-STU001

JDIO DE LETTRAGE 2001
0 MAIN WEST
HAWKESBURY, ON K6A 2H6
CA

Contact Name		Buyer	Chantal Lavoie
Vendor Phone	613 632 5449	Requisition Nbr	
Vendor Fax	613 632 9491	Tax Resale Nbr	10127-2607
Vendor Account Nbr		Terms	Net 30
		Currency	CAD
		FOB	

4	D4086-243P	Placard, Max Load	3/23/10	10.00	Yours ppd	\$7.5000	\$75.00
			Yes	Each			

Special Inst: AS ABOVE
B56981

5	D4085-TP	Placard, Instructions	3/23/10	15.00	Yours ppd	\$5.0000	\$75.00
			Yes	Each			

Special Inst: AS PER DWG D4085 REV. A
B56982
MATERIAL SAME AS ABOVE

PO Total: \$375.00

CERTIFICATE OF CONFORMITY
REQ'D UPON DELIVERY

Change Nbr: 2

Change Date: 3/23/10

No substitution or deviation without
consent.
Certificate of Conformity or Material
Certification required when applicable



210 MAIN W.,
HAWKESBURY, ONT. K6A 2H6
Tel.: 613 632-2001
Fax: 613 632-9491
www.studiolettrage.com

INVOICE / FACTURE

No.: 13561
DATE: 03/23/2010
PAGE 1 of 1

Re: Quote No. 8461

VENDU À:
SOLD TO:

LIVRÉ À:
SHIPPED TO:

Dart Aerospace Ltd
1270 Aberdeen
Hawkesbury, Ontario
K6A 1K7

Dart Aerospace Ltd
Hawkesbury, Ontario

ITEM ARTICLE	QTY QYE	UNIT UNITÉ	DESCRIPTION	GST TPS	PST TVP	UNIT PRICE PRIX UNITÉ	AMOUNT MONTANT
	15		D4085 set up	E		3.3333	50.00
	10		D4086 210P	E		5.0000	50.00
	10		D4086 220P	E		5.0000	50.00
	10		D4086 232P	E		5.0000	50.00
	10		D4086 243P	E		5.0000	50.00
	1		Printing	G		125.0000	125.00
			E - GST @ 5%				
			G - GST @ 5%; PST @ 8%				18.75
			GST				
			PST Exempt: #6122-5207				
			<i>Solo 1/24</i>				
Studio de Lettrage GST: #869034678RP001						TOTAL	393.75

PO 11514

Sold By:

Merci! Thank You!



Scotchcal™

Opaque Imaging Media 8522

Description

This media is specially formulated to dry quickly after printing. Production of outdoor weatherable and long-term indoor durable graphics is now easier than ever. Its changeable adhesive allows easy removal for up to one year.

Advantages

- Optimized for use with selected Epson Stylus Pro printers and Epson Archival inks.
- Optimized for use with selected HP DesignJet Printers and HP DesignJet Ink System UV or HP83UV Color Ink System
- For making opaque, laminated graphics that are outdoor weatherable and long-term indoor durable
- Media:
 - For opaque (reflective) graphics
 - Changeable, easy to remove from warranted substrates up to 1 year later
 - Dries quickly after printing so the overlamine can be applied almost immediately
 - Low slippage paper liner for superior tiling
- Overlaminates:
 - Provide additional UV (ultraviolet) and physical protection for making weatherable finished graphics
 - Available in luster and matte gloss
 - Adhesive allows for heat-assisted or cold-temperature lamination

Applications and Uses

3M™ Scotchcal™ Changeable Opaque Imaging Media 8522 is intended only for ink jet printing and for use with the listed Compatible Products and Equipment and the following applications. Any other application is NOT warranted by 3M or covered by the worldwide 3M™ MCS™ Warranty unless 3M gives its prior written approval for the application.

- First surface images (the image is on top of the film) for opaque posters and signs, including:
 - Graphics for vans, personal vehicles, trucks and buses
 - Novelty posters
 - Retail and point-of-purchase displays
 - Information graphics such as maps and directories
 - Entertainment promotions in museums, zoos, parks, theatres, sports venues
 - Education and presentation graphics

- Legal and courtroom exhibits

- For flat or simple curved surfaces, with or without rivets, used in vertical ($\pm 10^\circ$) applications

Limitations of End Uses

The following uses and applications are specifically NOT warranted.

- Fleet applications in areas that use salt for winter road maintenance
- Application to non-warranted substrates, including wall-board
- Applications subjected to gasoline vapors or spills
- Application to corrugated or highly irregular surfaces or sharply raised areas
- Graphics applied to stainless steel, including stainless steel vehicles
- On flat surfaces with rivets, tenting of 4 to 10 mm around rivets may be expected; rivets may be cut around to eliminate tenting.

Note: Standard ink jet technology is water based. Water-based chemistry is susceptible to the extremes of heat and humidity. This is a factor in most product constructions on the market. Read the Fabrication, Shelf Life and Storage sections in this bulletin. Staying in the middle of these ranges always provides optimum performance.

Compatible Products and Equipment

Thermal Ink Jet Printing Systems

- Epson Stylus Pro 9500, Stylus Pro 10000 printer
 - Epson Archival Inks
- Epson Stylus Pro 10600 printer
 - Epson Archival Inks
- HP DesignJet Printers 2000 and 3000 series
 - HP DesignJet Ink System UV (pigment-based ink)
- HP DesignJet Printers 5000 series
 - HP83UV Color Ink System

Overlaminates (required)

- 3M™ Luster Overlamine 8519 (semi-gloss)
- 3M™ Matte Overlamine 8520

Note: For the full product names of the 3M products listed on this page, please see page 1.

Warranted Substrates

Media 8522 is warranted for use on the following rigid substrates.

Some substrates may "out-gas", resulting in tiny bubbles throughout the surface of the graphic. For maximum performance, be sure the substrate you select is properly cleaned and prepared as recommended by the manufacturer. See Instruction Bulletin 5.1 for additional information.

- Alodine (anodized aluminum)
- Automotive panels (automotive painted steel)
- Fruehauf (painted aluminum)
- FRP (fiberglass reinforced plywood)
- Glass
- Imron® (polyurethane-painted metal panel)
- Acrylic
- Sintra™ board

Test and Approve Non-warranted Substrates Before Use

Media 8522 is not warranted for any substrate other than those listed above. If you want to use it for other substrates, 3M recommends that you test and approve the media for both adhesion and removal characteristics.

Characteristics

Characteristic	Description
Media	7 mil. white, opaque graphic film
Liner	Low-slippage, lay flat paper
Adhesive	Changeable, pressure sensitive
Thickness (media and adhesive)	7.5 to 8 mil (nominal)
Application substrates	See Warranted Substrates, above
Application surfaces	Flat or simple curved surfaces, with or without rivets, used in vertical ($\pm 10^\circ$) applications (no corrugations)
Application temperature range	28° to 110°F (-2° to 43°C) (air and surface)
Roll sizes	36" x 45 feet (914 mm x 13.5 m) 54" x 45 feet (1372 mm x 13.5 m)

How to Become a 3M Ink Jet Registered Fabricator

Only 3M Thermal Ink Jet Registered Fabricators are eligible to offer 3M MCS warranted graphics. In order to become certified, a fabricator must complete the requirements as specified in the 3M Ink Jet Graphics Registered Fabricator Reference Manual located on the 3M website at www.scotchprint.com

Effective Performance Life

To obtain the warranty given below, the graphics must be made according to 3M's recommendations which are detailed in the Warranty and Limited Remedies on page 3. Also see the section, Removability.

Warranted Durability

Media 8522 with Overlaminates 8519 or 8520	Epson Printers		HP Printers	
	Outdoor	Indoor	Outdoor	Indoor
Applied to Warranted Substrates	2 years	5 years	3 years	5 years

Removability

Imaging media 8522 is removable from warranted substrates for 1 year without the aid of chemical strippers or accessories. Refer to Instruction Bulletin 4.23 for additional information.

Fabrication

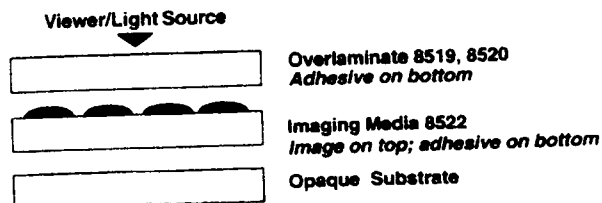
Graphics must be made according to 3M's recommendations which are detailed in the Warranty and Limited Remedies on page 3.

See Instruction Bulletin 4.23 for detailed fabrication, printing and mounting information.

Graphic Construction Options

Opaque (Reflective) Graphics

Opaque graphics made with imaging media 8522 require an overlaminate and an opaque substrate.




Note: For the full product names of the 3M products listed on this page, please see page 1.

Shelf Life and Storage

- 3M™ Scotchcal™ Changeable Opaque Imaging Media 8522 has a shelf life of one year.
- Storage conditions (new and partially used rolls). For optimum performance, use the middle of these ranges:
 - Original packaging, including plastic wrap
 - Relative humidity of 20% to 80%
 - Temperature of 33° to 104°F (0° to 40°C)
 - Away from direct sunlight
- Do not stack unprotected rolls or lay sharp or heavy objects on them.

Health and Safety

 **Caution**

When handling any chemical products, read the manufacturers' container labels and the Material Safety Data Sheets (MSDS) for important health, safety and environmental information.

To obtain MSDS sheets for 3M products:

- By fax, call 1-800-364-0768 in the US and Canada or 1-650-556-8417 for all other locations.
- Electronically, visit us at <http://www.3m.com/msds>.
- By mail, or in case of an emergency, call 1-800-364-3577 or 1-651-737-6501.

When using any equipment, always follow the manufacturers' instructions for safe operation.

Warranty and Limited Remedies

3M™ MCS™ Warranty for Graphics Produced on HP DesignJet Printers and Epson Stylus Pro Printers

The following is made in lieu of all other express or implied warranties, including any implied warranty of **merchantability** or fitness for a particular purpose: We warrant graphics produced by a 3M Ink Jet Registered Fabricator made with imaging media 8522, printed on an approved HP thermal ink jet printer according to HP's recommendations or Epson Stylus Pro printer according to Epson's recommendations, overlaminated with 8519 or 8520, and applied to a Warranted Substrate according to 3M's recommendations. These



Commercial Graphics Division

3M Center, Building 220-6W-06
P.O. Box 33220
St. Paul, MN 55133-3220 USA
General Info: 1-800-374-6772
Technical Info: 1-800-328-3908
Fax: 1-651-736-4233

Fax-on-Demand: 1-800-364-0768 U.S./Canada or 1-651-732-6506 International
Fax-on-Demand document: 4506
www.scotchprint.com

3M Canada

P.O. Box 5757
London, Ontario
Canada N6A 4T1
1-800-265-1840
Fax: 519-452-6245

graphics are covered against failure caused by ultraviolet light, temperature extremes, pollution, and other elements.

If a graphic fails to perform in accordance with 3M product specifications within this time frame, 3M will replace the materials at no charge. **These remedies are exclusive. In no case shall 3M be liable for any direct, indirect, or consequential damages, including any labor charges.**

3M Related Literature

Listed below is related 3M technical literature that may be of interest. You may view and print these Bulletins from our Web site at www.scotchprint.com, or order them via our Fax-on-Demand (FOD) system. Call one of these phone numbers to order the desired bulletins, and specify the FOD document number provided in the chart.

United States or Canada: 1-800-364-0768
International: 1-651-732-6506

Subject	Bulletin No.	FOD No.
Product Bulletins		
3M™ Scotchcal™ Overlamine 8519 and 8520	8519/8520	4524
Instruction Bulletins		
Making thermal ink jet graphics	4.23	6523
Application, substrate selection, preparation and substrate-specific application techniques	5.1	7001
Warranties		
Worldwide 3M™ MCS™ Warranty Packet (includes all Commercial Graphics MCS Warranties)		9503
Worldwide 3M™ MCS™ Warranty Overview-Folder		9504

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HP and DesignJet are tradenames of Hewlett Packard.
Sintra is a trademark of Swiss Aluminum Ltd.
Intron is a registered trademark of DuPont in the United States

Bulletin Change Summary

The Epson Stylus Pro Printers 9500, 10000 10600, and Epson Archival Inks have been added to this bulletin. Additional changes resulting from this addition are marked with black bars in the margin.

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Col. Santa Fe, Del. Álvaro Obregón
México, D.F. 01210
52-55-52-70-04-00
Fax: 52-55-52-70-22-77

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